

Application No. 10/633,939
Amendment dated August 25, 2005
Reply to Office Action of June 21, 2005
Express Mail No. EV 722668229 US

Amendments to the Specification:

Please amend the specification as follows:

The paragraph beginning page 5, line 26:

A preferred embodiment of the present invention is described in detail below with reference to the attached drawing figures, wherein:

FIG. 1 is a first isometric view of a mount constructed in accordance with a preferred embodiment of the present invention, with the mount shown supporting a telescope;

FIG. 2 is a second isometric view of the embodiment shown in FIG. 1;

FIG. 3 is an exploded view of a preferred embodiment of the present invention;

FIG. 4 is a representation of a component of a preferred embodiment of the magnetic encoder portion of the present invention;

FIG. 5 is a representation of the structural and operational relationship between components of a preferred embodiment of the magnetic encoder portion of the present invention;

FIG. 6 is a fragmentary, vertical cross-sectional, elevation view through the line 6-6 of Fig. 1 and illustrating [[of]] two substantially identical drive mechanisms as they might be positioned and oriented within the mount to define two different axes of movement and further illustrating the telescope of Fig. 1 in broken line; and

FIG. 7 is a fragmentary, sectional, elevation view of one of the drive mechanisms of FIG. 6.

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The paragraph beginning at page 1, line 5:

The present patent application is a continuation-in-part and claims priority benefit with regard to all common subject matter of an earlier-filed patent application titled A PORTABLE TELESCOPE MOUNT WITH INTEGRAL LOCATOR USING MAGNETIC ENCODERS FOR FACILITATING LOCATION OF OBJECTS AND POSITIONING OF A TELESCOPE, Serial No. 09/780,822, filed February 9, 2001, now U.S. Patent No. 6,603,602. The identified earlier-filed patent application is hereby incorporated by reference into the present patent application.

The paragraph beginning at page 8, line 1:

The first and second magnetic encoders 42,44 are substantially identical and correspond, respectively, to the azimuth and altitude axes, and are operable to generate signals in response to and representing movement of the telescope tube 20 about these axes. The design of the encoders 42,44 is unique in that [[is]] it allows for very high resolution and accurate position measurement using inexpensive parts and materials. Resolution of the preferred encoder 42,44 is 0.1° per step, or 3600 steps, slew rate is 100° per second, angle representation is 16 bits, and vector representation is 48 bits. Each encoder 42,44 broadly comprises one or more magnetic field generators 56,57 and one or more associated magnetic field detectors 58,59.

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The paragraph beginning at page 10, line 24:

The display 48 provides a visual interface between user and microprocessor 46 and facilitates communication therebetween. The display 48 is preferably a light emitting diode (LED) display or liquid crystal display (LCD) or other similarly suitable device. Furthermore, display brightness is preferably variable, from dim to full, which allows for both reduced power consumption and reduced interfering light pollution, as desired. The input buttons 50 provide an interface between user and microprocessor 46 whereby user input may be provided to the microprocessor 46, possibly in response to a prompt[[s]] communicated via the display 48.

The paragraph beginning at page 14, line 21:

In use and exemplary operation, the drive 100 functions substantially as follows. The microprocessor 46, knowing the orientation of the mount 10 and telescope tube 20, controls the drive motors 103a,103b to reposition the mount 10 and telescope tube 20 for viewing a particular astronomical object. As the drive motors 103a ~~or~~103b or 103b move the mount 10, signals are substantially continuously provided by the detectors 58 or 59 and processed by the microprocessor 46 to determine the mount's current orientation. When powered by the drive motors 103a,103b, the design of the drive 100, including the compression provided by the spring washers 112, the support provided by the contact points 108, and the degree of friction provided by the first and second rings of low friction material 106,107, result in the drive gear 102 and drive motors 103a or 103b being engaged.